

## ART 34 AMDT

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## CLAIMS

5 1. A method of detecting unauthorised copies of a genuine document, comprising the steps of:

(a) computing profiles of a printing characteristic derivable from a set of documents that are known or can be assumed to be largely genuine, the characteristic being associated with the output of a printer that prints genuine documents and not being intrinsic to the original document;

10 (b) analysing the profiles to assess the probability that any given document within the set, or additional to it, is in fact genuine.

2. The method of Claim 1 in which the characteristic is the degree of print diffusion on line edges.

15 3. The method of Claim 1 in which the characteristic is the degree of line fragmentation.

20 4. The method of Claim 1 in which the characteristic is the degree of edge deformation.

5. The method of Claim 1 in which the characteristic is the configuration of pixels.

25 6. The method of Claim 1 in which the characteristic is the orientation of glyphs.

7. The method of Claim 1 in which the profile is represented in a histogram.

8. The method of Claim 7 in which the profile is represented as a first derivative of the histogram.

30 9. The method of Claim 1 in which profile related data is written into the document.

10. The method of Claim 1 in which the profile is generated and updated as a consequence of large numbers of printed documents being regularly analysed.

11. The method of Claim 10 in which the document is a cheque.

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12. The method of Claim 1 in which the original is accurately printed in a controlled environment and the profile is generated using occasional samples.

13. The method of Claim 12 in which the document is currency, a driving license, ID, or  
10 a passport.

14. The method of Claim 1 in which the original is modified by including a special printed feature designed to facilitate profile comparison.

15. 15. The method of any preceding Claim comprising the steps of generating a mean value for several profiles and determining the distance from this mean of each of a large number of sample documents, so that any counterfeit documents in the sample fall outside of the distance distribution associated with authentic documents.